

## ABSTRACT

In a method for measuring an amount of strain of a bonded strained wafer, at least one strained layer is formed on a single crystal substrate. The bonded strained wafer is measured with respect to two asymmetric diffraction planes with diffraction plane indices (XYZ) and (-X-YZ) by an X-ray diffraction method, a reciprocal lattice space map is created from the measured data, and the amount of strain of the strained layer is calculated from the peak positions for the respective diffraction planes of the single crystal substrate and the strained layer appearing on the reciprocal lattice space map. Thereby, amounts of strain in the horizontal direction and in the vertical direction of the strained layer can be measured in a shorter time and more simply.